

DECLARATION UNDER 37 CFR §1.131
Serial No. 10/632,873
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IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

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PATENT APPLICATION

MAR 31 2006

Applicant: Kim, et al.

Case: 007364 ALRT/ETCH/DRIE

Serial No.: 10/632,873

Filed: August 1, 2003


Examiner: George, Patricia Ann

Group Art Unit: 1765

Confirmation No.: 4644

Title: **SELECTIVE ETCHING OF CARBON-DOPED LOW-K DIELECTRICS**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. §1.8	
I hereby certify that this correspondence is being transmitted by facsimile under 37 C.F.R. §1.8 on <u>3/31/2006</u> and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Facsimile No: (871) 273-8300.	
<u>3-31-06</u> Date	 Signature

S I R:

DECLARATION OF JOEY CHIU, YAN YE, AND XIAOYE ZHAO
UNDER 37 CFR §1.131

We, Joey Chiu, Yan Ye, and Xiaoye Zhao declare as follows:

1. We are inventors of above-captioned patent application.
2. The invention which forms the subject matter of the above-captioned patent application was conceived of and reduced to practice on or before June 14, 2002, as evidenced by Exhibit A, enclosed herewith.
3. Exhibit A is a copy of an invention alert that was submitted to the Applied Materials Patent Department on or before June 14, 2002 as part of an invention disclosure that forms the basis of the present application.
4. Exhibit A describes a plasma etch process for selectively etching a layer of low-k dielectric material by introducing into a plasma etch chamber, in which the layer of low-k

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dielectric material is situated, an etching gas mixture comprising a fluorine-rich fluorocarbon or hydrofluorocarbon gas, a nitrogen-containing gas, and a hydrogen-rich hydrofluorocarbon gas; and maintaining a plasma of the etching gas mixture in the plasma etch chamber to etch the layer of low-k dielectric material. See pages 2-3, paragraphs 7-8.

5. Exhibit A is offered as supporting evidence that the method of the present invention – as recited, for example, in independent claim 1 – was conceived of and reduced to practice on or before the June 14, 2002 filing date of United States Patent No. 6,897,154 and before the March 12, 2003 filing date of United States Patent No. 6,869,542.

We further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

3/21/06
Date

Joey Chiu
JOEY CHIU

Date

YAN YE

Date

XIAOYE ZHAO